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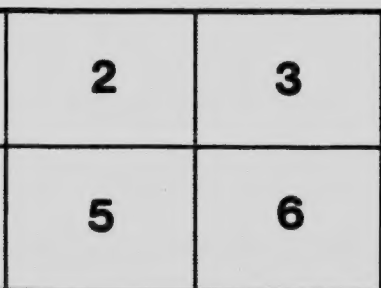
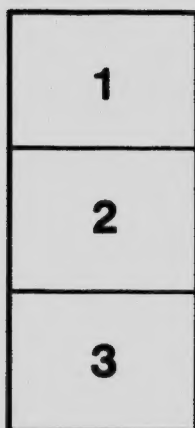
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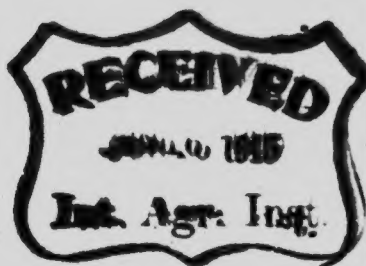
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Barley Growing



Manitoba Agricultural College
Winnipeg, Canada

FIELD HUSBANDRY DEPARTMENT

BARLEY GROWING

Barley is not classified as the most important crop in our list of cereals in this Province. However, it does possess some characteristics which should commend it to the man who is interested in growing a liberal supply of grain for feeding purposes. The crop in question can be sown fairly late in the season, and it will produce very fair returns. On farms that are over-run with weeds barley may be used as a cleaning crop. Sowing rather late in the spring affords an opportunity for thorough soil tillage, and a large number of weeds can be destroyed in this manner. Considerable interest has been taken in various classes of live stock within recent years. As the industry develops more attention must be given to the production of grain for feeding. Barley makes an excellent concentrate for hogs and cattle, and it may be fed to other classes of stock as well. With an increase in the number of any one of these classes in a given district, a larger area will undoubtedly be set aside for the production of barley.

Place in Rotation

Barley is generally used as the last crop in the rotation, and as a rule it does not have a chance to make a high yield per acre, because the preceding crops have taken the available plant food from the surface soil. Since barley is grown almost exclusively for feeding purposes, it does not seem to be necessary to have the field free from other kinds of grain. The latter can be harvested and utilized along with the barley.

In the wheat growing districts barley may be sown as the fourth or fifth crop in the rotation. Where clover is grown, seed of this legume may be sown along with the barley. The field can then remain in grass for two years, furnishing a crop of hay the first year, and being utilized for pasture the second year. On the large live stock farms Indian Corn can be grown after the hay.

Soil Preparation

The heavier types of soil can be handled best by plowing in the autumn. Turning the soil at this season of the year leaves it exposed to the frosts of winter, and it can be cultivated and handled much more readily the following spring. Where it is not possible to plow in the fall, and the land needs this treatment, it should be turned early in the spring and worked down with disc and drag harrow. If the soil is loose and open the packer will assist in bringing the furrow slice into a firm condition, and will prevent undue loss of moisture. The field can be cultivated once or twice before seeding. This plan will undoubtedly eradicate a large number of the small weeds which appear early in the season.

On the lighter types of soil spring plowing is preferable. The plow should be followed closely with the packer and harrow, and the seed sown as soon as possible. If each day's plowing can be packed, harrowed and seeded the same day as plowed, so much the better. Where spring plowing is practised it is advisable to disc the land the previous fall, as this induces the germination of weed seeds, which the frosts of winter will destroy; and, incidentally, reduces the loss of soil moisture. In the spring the harrow should be used from time to time, thus destroying several successive crops of weeds.

Manure

This cereal does not have such an extensive root system as wheat and for this reason it must draw upon the surface soil for its supply of moisture and plant food. Special attention should, therefore, be given to the preparation of an ideal seed bed, thereby providing the crop with the very best conditions under which to make its growth.

On farms where well defined systems of crop rotation have been worked out, and farm manure is available for soil improvement, it is customary to apply the manure to land which is to be planted to Indian Corn, or possibly a root crop. Manure may also be utilized prior to sowing barley. Field investigations have shown that it is possible to secure a marked increase in yield by putting on farm manure. A gain of at least ten bushels of barley per acre can be obtained in this way, provided the field is properly handled.

Varieties Suitable for Manitoba

There are two well defined classes of barley in use in this province, viz., the "two-rowed" varieties, and the "six-rowed" sorts. The six-rowed varieties have given the best returns here in the West, although the former have produced very fair yields. Such six-rowed varieties as "Mensury," "Odessa," "O.A.C. No. 21," and "Manchurian" appear to lead in this class; while "Canadian Thorpe" and "Swedish Chevalier" are the outstanding varieties in the two-rowed barleys.

Time of Planting

When the barley plants are young they appear to be more susceptible to frost than wheat or oats. It may also be noted that barley is probably injured less by late seeding than wheat or oats; and for these two reasons the time of planting may be later than in the case of the above crops. In the central part of this Province barley may be sown from May 10th up to May 25th. Fairly good returns have been obtained on fields where the seedings were postponed even later than the dates mentioned.

Quality of Seed

The examination of the large number of samples of barley in our seed laboratory indicated that much of the seed set aside for use this spring was comparatively low in germinating power. A number of the samples also carried inert material, as well as noxious

weed seeds. seed only should be sown. It pays well to make an examination and determine whether the available grain will give a high germination test.

Treatment of Seed for Smut

Smut in barley does not cause as great a loss as smut in wheat, because the value of the threshed grain is not affected. It does, however, cause an appreciable loss by reducing the yield per acre. This can be obviated to a large extent by treating the seed before sowing. The treatment with formalin has doubtless given better results than with bluestone when it has been properly applied. From the data at hand it would also seem that immersing was preferable to sprinkling. The formalin used should be the standard, forty per cent. formaldehyde, if applied in the former manner, should be used in a solution of one pound to forty gallons of water. Where there are not facilities for treating in this way the grain may be sprinkled with a solution of one pound of formalin to thirty four gallons of water.

If bluestone is used, and the grain is immersed, a solution of one pound in ten gallons of water is advisable. If sprinkled, one pound to six gallons is the proportion.

Quantity of Seed per Acre

Two bushels per acre is the usual quantity of barley sown for seed. The quantity will depend in part upon the quality of the grain. The character of the soil may also be taken as another factor in deciding the quantity which should be sown.

Method of Planting

Barley can be put in best with a grain drill. The seed is thus placed in contact with moist soil, and the plants should make their appearance within a few days. In the evolution of our systems of grain farming greater care has been exercised in preparing the land for crops like wheat and oats, and barley has been given a secondary position. It will, however, respond to good cultural treatment.

Harvesting the Crop

Further improvement can undoubtedly be made in our system of harvesting and caring for the final product. Barley should be cut before it has become thoroughly ripened, and the sheaves placed in round, well-capped stooks, so that the straw will cure properly; and, at the same time, prevent the sun and rain discoloring the grain. If the product is to be sold on the market it should be threshed or stacked as soon as it is dry. Most of the low grade barley in Manitoba is due to the fact that it is usually cut first, and allowed to remain in the stook until the other grain is taken care of. The product is, therefore, darkened in color, and injured in vitality by constant wetting and drying.

It will not be necessary to observe any special precautions in the threshing on farms where the grain is to be used for feeding purposes, but in the production of market grades close threshing is not desirable, inasmuch as it has a tendency to break the kernels, injuring the sample for subsequent germination.



